

Community Advisory Council
March 10, 2022
Action Items/Notes

Final

Note: This meeting was held virtually. A video recording of the Zoom meeting is available.

These notes are in the following order:

1. Attendance
2. Correspondence and Handouts
3. Administrative Items
4. Environmental Updates
5. Update on PFAS and 1-4 Dioxane
6. BNL and Clean Energy
7. CAC Membership Updates
8. Agenda Setting
9. Community Comment

1. Attendance

Members/Alternates Present: See Attached Sheets.

Others Present: D. Bauer, D. Black, N. Blackburn, M. Cowell, W. Dorsch, A. Engel, J. Freeman, L. Gambia, D. Gibbs, S. Gonzalez, S. Hartzell, R. Hodgkin, R. Howe, S. John, A. Juchatz, D. Manning, R. McKay, R. McNair, J. Misewich, D. Paquette, D. Pocze, A. Rapiekjo, J. Remien, R. Tribble, J. Wanless

2. Correspondence and Handouts

Items numbered one through three were e-mailed to Members on March 3, 2022. Items numbered four through six were e-mailed to Members on March 10, 2022

1. Draft agenda for March 2022 meeting
2. Draft notes from the October 2021 meeting
3. Action Item follow-up
4. Copy of presentation: Dismantlement & Disposal of High Flux Beam Reactor Building 705 (The Stack)
5. Copy of presentation: PFAS Update
6. Copy of presentation: New York Clean Energy Future: BNL Role

3. Administrative Items

The meeting was called to order at 6:30 p.m. Reed Hodgkin, facilitator, welcomed everyone to the Zoom virtual meeting. He reviewed the ground rules and draft agenda.

David Manning, Director - Stakeholder Relations office, welcomed everyone. He told the CAC that Noel Blackburn has been appointed as the new Chief Diversity Officer at the Lab.

Doon Gibbs, Laboratory Director, welcomed everyone and said the Lab is in good shape and may have a budget soon for FY 22. The COVID numbers have gone down in the area, and the Lab will be moving out of limited operations. It is anticipated that there will always be people teleworking as part of the new normal, but the good news is that the number of staff onsite will be increasing. He then said that there was a Newsday article about transitions happening at BNL at the leadership level. He said that he, Bob Tribble, and Jack Anderson will be transitioning out of their roles over the next year and a half. The Lab is headed in a good direction, and he is confident it will continue.

Bob Tribble said the Lab has been planning for a very bright future as it continues to have new people coming in to new roles. The Lab is looking forward to where Noel Blackburn will be taking the Lab over the next few years. He has a number of great ideas and enthusiasm.

Approval of notes:

The November 2021 Action Items and Notes were approved as written with none opposed and one abstention.

4. Environmental Updates - Jason Remien, Manager, Environmental Protection Division

Jason Remien spoke about the demolition of Bldg. 650. He said the primary scope was to get rid of the waste. A bulk shipment went out via rail in February and the Lab was just notified that all the rail cars arrived safely at Energy Solutions in Utah, and that all were accepted. There are still some smaller containers of waste on site, some of which shipped today via truck to the same facility.

Remien then spoke about the Dismantlement and Disposal of the High Flux Beam Reactor. He said the draft closeout report was prepared and sent to the Regulators in December 2021. It was reviewed by Brookhaven Science Associates (BSA), Department of Energy (DOE) and others prior to being sent out. Comments were received from the New York State Department of Environmental Conservation (NYSDEC) on Feb 4, 2022, and comments from Environmental Protection Agency (EPA) on Feb 10, 2022. Responses to those comments were prepared and a revised closeout report was sent out Feb 22. The Laboratory received one follow-up comment from the NYSDEC which was recently addressed by the United States Army Corp of Engineers (USACE), and subsequently received an email that they accepted the response. Both BNL and USACE are now waiting for the EPA's acceptance of our responses to their comments. The project team hopes to have a final closeout report in the next few weeks and will make arrangements to make the final report available to the CAC. It will probably be a link since it is a large document.

Member Schuhmann asked what follow-up the EPA is asking for.

Remien said it was comments on clarifications in the closeout report. The site will remain under long term institutional control because some residual contamination remains (i.e., concentrations below agreed upon ROD cleanup levels). The deeper sections of the stack pedestal also remain.

Member Jordan Sweet asked if there is a timelapse movie of the mantis taking down the Stack.

Remien said yes, we will send that out to the CAC.

ACTION ITEM: Send timelapse video of the Stack removal to CAC.

Member McCormick asked if there were any surprises during this project and if so, how were they addressed. He asked what the rationale was to leave the foundation in the ground, and if any of it was radioactive.

Remien said there were no surprises. The project was planned for a long time and was successful. The pedestal was a very deep chunk of concrete. The scope was to remove the contaminated portions. Everything left behind met the cleanup goals in the Record of Decision (ROD). There was no reason to remove the concrete from the ground.

Member Blumer said that Remien mentioned some equipment was recycled. She asked if there was any part of the building itself that was clean enough for recycling.

Remien said the entire interior portions of the Stack contained low level activity, so there was no opportunity for recycling. In Bldg. 650 the Lab was able to recycle some of the metal that was not contaminated. The concrete was used as recycled concrete aggregate. The Lab always looks to recycle when doing a project to divert as much of the waste as possible. It just wasn't possible for this project.

Member Blumer said when buildings are built, they should be designed with end-of-life solutions.

Remien said there are a lot of new requirements coming down with net zero waste, reducing energy consumption. DOE has been very proactive. The lab wants to fully understand the guidance first and then plan a CAC presentation on site sustainability.

Member Esposito said great job.

5. Update on PFAS and 1-4 Dioxane - Doug Paquette, Groundwater Protection Group

Doug Paquette updated the CAC on groundwater testing and the installation of groundwater treatment systems for Per- and Polyfluoroalkyl Substances (PFAS). The presentation included a discussion about the detection of low levels of PFOS and PFOA (<10 ng/L) in new wells installed near BNL's southwestern boundary and recent discussions with the Suffolk County Water Authority (SCWA) regarding their nearby water supply wells. Low levels of PFOS and PFOA (generally <5 ng/L) have been detected in several of the SCWA wells.

Member Esposito asked if the SCWA wells have carbon filtration systems.

Paquette said not at this time.

Member Krupski asked for the capacity of the extraction wells used for the treatment.

Paquette said that overall, each system has a design a capacity of treating about 800 gallons/minute. The current firehouse system will pump about 400 gallons/minute. So, there is extra capacity if we have to put in additional wells.

Member Krupski asked if there is an estimate of the plume volume and how long it will take for treatment.

Paquette said the Lab does not have a good estimate for treatment times. There isn't a lot of experience with PFAS. It is anticipated that the downgradient portions of the plumes will clean up, but there is a concern about the source areas themselves. PFAS tends to stick around in the soils and groundwater at the source area. The need to remediate/remove the source area soils will be evaluated.

Member Schuhmann asked if the Lab does core sampling of the soil at the source areas.

Paquette said yes, but to date only a limited number of samples have been collected. BNL is planning to collect many more samples to look at the distribution of PFAS in the soils. If it is determined that a fair amount of the residual PFAS resides in shallow soils, removing the top portion of the soil would be considered. One of the issues the Lab will have with collecting soils at the former firehouse is that the former NSLS-I building was constructed over part of the old training area. Therefore, parts of the training area may not be accessible for sampling.

Member Ziems asked if any of the Lab's firefighters remember any large fires onsite where this foam was used.

Paquette said no, the foam was only used for training and never used to respond to an actual emergency as far as known. (Post-meeting note from D. Paquette: Some foam was also released during fire suppression system testing.)

Member Ziems asked if there were any small plane crashes where it might have been used.

Paquette said not onsite, but there were some at Brookhaven Calabro airport.

Member Filler said since the foam is not used in real fires, why use it in training.

Paquette said it was integrated into training at the time because it was viewed as great material to fight petroleum fires. The chemicals that were used to make the foam were not an issue until recently. There was not a lot of understanding about the environmental or health effects of PFAS at the time.

Hodgin asked for clarification if there were ever any scenarios at BNL where the firefighters would have to use that foam onsite.

Paquette said yes if there was an oil fire. We do have a facility onsite called the major petroleum facility, which is a bulk storage facility for oil. In fact, some of the foam training happened near those above-ground tanks. Or if a truck onsite were to get into an accident or overturn. (Post-meeting note from D. Paquette: BNL's current inventory of firefighting foam is PFAS-free.)

6. BNL and Clean Energy – Jim Misewich, Associate Lab Director Energy and Photon Sciences

David Manning said next month we will focus on climate with Alison McComiskey, but tonight we have Jim Misewich, who is the head of energy and photon science, to present to you on clean energy.

Jim Misewich spoke about Brookhaven's role in clean energy future in NY and the region. He said the goal is to get the carbon out of our energy system. We are interested in achieving a net zero portfolio. These are tough challenges, and we need to collaborate to identify the path forward. This is a team effort.

Member Blumer said there are many different viewpoints on this subject. What have you learned when you get to issues where there are major conflicts? How do you handle those issues of conflict?

Misewich responded that Blumer was right, there are always conflicting viewpoints. This is a major challenge. It is important to have a representative group that is advising what to work on and what the impacts are on all the issues. This is new for everyone. The Lab has learned from the quantum center as a model that you have to listen to all points of view and have mechanisms for resolving things you didn't foresee. There is a conflict resolution process that

has been formalized. If the steering committee can't resolve a conflict, we take it to the institutional level.

Member Krupski asked about placement for production and storage. This has been a topic of discussion. Working with the municipalities would be a great help. There is a lot of misinformation.

Misewich said he agrees. When a project is identified, it is important to engage the stakeholders in that community, or it won't work. Representatives of the communities are needed for direct engagement.

Krupski asked if the Lab is looking at smaller projects, like solar on the roof of business buildings.

Misewich said the Lab is not looking at those local projects at this point. A lot of these things are happening at the grass roots level. This is not a strictly BNL role. The Lab is there to support the research needs.

Member McCormick asked of the proposed alternative forms of energy sources, which form is closest to fruition.

Misewich said there are many different facets to that. As deployment goes up, cost goes down. For instance, there is a new wind turbine that is 14 megawatts and has a high-capacity factor. That is dramatically lowering the cost of wind. It is important to always look at cost. Things are getting less expensive.

Member Ziems asked if the Lab has looked at nuclear fusion.

Misewich said that is something the Lab has not looked at. He is aware that the DOE is supporting some international collaborations on that, but not here at BNL.

Member Jordan Sweet said this is going to be a complex system. What about the resilience of the system to cyber-attack?

Misewich said that is correct. This is becoming a more interconnected system, and cyber security is a huge concern. That's one reason the Lab wants to build the Grid Center.

Member Schwartz said Misewich didn't mention the work the Lab is doing trying to take electricity, water and CO2 and make organic compounds. I think that may be more of a hope for the future. Liquid fuels transport and store well. It is not possible to make enough batteries to meet the need. Schwartz thinks chemical conversion and liquid fuels are the future.

Misewich said he thinks this is incredibly promising, it is a great idea. Liquid fuels are better than gaseous fuels. He indicated that he doesn't think research and development is going to get there quite yet. There is promising research on storage as well. There will be an enormous amount of offshore wind in the next few years.

James Freeman asked how wide the scope of collaborative partners is.

Misewich said there is wide recognition that everyone has to contribute, and it is important to engage with a wider variety of communities.

Member Sprintzen said the pictures of Discovery Park buildings do not show any solar panels. Is that correct and if so, why?

Hodgin said we will take that as an action item and get back to you and the CAC with an answer.

***ACTION ITEM: Find out if any of the buildings in Discovery Park have solar panels and if not, why not.**

Hodgin said there are a few visitors with us this evening that are considering membership. He introduced Pastor Samuel John from The Kingdom of God ministries.

Pastor John introduced himself and spoke about his ministry. He said his church has been meeting virtually and is looking for a meeting space. He said he is excited to be a part of the CAC.

Hodgin then introduced James Freeman from the Gordon Heights Civic Association

Freeman was unable to communicate at the time. Hodgin said he will give Freeman an opportunity next month to introduce himself to the CAC.

7. CAC Membership updates

Hodgin said Mastic Park Civic Association, Lake Panamoka Civic Association, and the Huntington Breast Cancer Coalition have been removed from the CAC after attempts to contact them were unsuccessful. He then said it is time for 5-Year renewals and the Lab will be in touch with members regarding that. Also, some Member groups are missing alternate members, so the Lab will be in touch with members regarding that also.

8. Agenda Setting

David Manning said that next month, Alison McComiskey will be here to talk to the CAC about aerosols, and climate. Also, Kathy Schwager will talk about the prescribed burn and deer management. The following month Chuck Black, who runs the CFN, will discuss invisible glass and other technologies. If CAC members have other ideas, please let Manning know.

Member Sprintzen asked when the CAC will be meeting in person again.

Manning said Lab staff will be returning to site next week, so the Lab is considering in-person meetings for the CAC. The meeting will be virtual next month. He confirmed that the members in attendance are interested in meeting in person again and stated that the Lab will do that as soon as possible.

McCormick said it would be good to keep Zoom as an alternative option.

Manning said the Lab is hoping to have hybrid meetings. The meeting facility is set up for that.

Member Filler said that he doesn't think it is good to compare renewables to what is going on with other energy sources because there is a lot of confusion as to what is really going on.

Esposito said she respectfully disagrees. The issue is the cost fluctuation.

Member Filler said he would like to meet with Adrienne sometime to discuss this topic.

9. Community Comment

There was no community comment.

The meeting adjourned at 9:08 PM

Next meeting: April 14, 2022

X = Present	2022	Affiliation		First Name	Last Name	Jan No mtg	Feb No mtg	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
		ABCO – Civic	Member	Ray	Keenan			X									
			Alternate	Michael	Madigan			X									
		American Physical Society – Business & Labor	Member	Reinhardt	Schuhmann			X									
			Alternate	Donavan	Hall												
		Brookhaven Coalition of Chambers of Commerce – Business & Labor	Member	Ron	Trotta												
			Alternate	Carmine	Inserra												
		Brookhaven Retired Employees Association- BNL Affiliation	Member	Mark	Israel			X									
			Alternate	Eena-Mai	Franz												
			Alternate2	Steve	Shapiro												
		Citizens Campaign for the Environment – Advocacy & Environment	Member	Adrienne	Esposito			X									
			Alternate														
		Colonial Woods Whispering Pines – Civic	Member	Jane	Koropsak			X									
			Alternate														
		Coram Civic Association - Civic	Member	Paul	Ziems			X									
			Alternate	Rosa	Turk			X									
		East Yaphank Civic Association - Civic	Member	Robert	Feinman			X									
			Alternate	Catherine	Mack												
		Emeritus	Member	David	Sprintzen			X									
		FOREST - Advocacy & Environment	Member	John	Pavacic												
			Alternate														
		Foundation for Economic Education – Education, Science & Technology	Member	Bruce	Martin												
			Alternate	Craig	Pratka			X									
		Friends of Brookhaven- BNL Affiliation	Member	Biays	Bowerman												
			Alternate	Steve	Schwartz			X									
			Alternate2	Ben	Ocko												
		Individual	Member	Jane	Corrarino			X									
		Individual	Member	Karen	Blumer			X									
		Individual	Alternate	Michael	Madigan												
		L.I. Pine Barrens Society – Advocacy & Environment	Member	Richard	Amper												
			Alternate	Kaitlyn	Sherman			X									
		Longwood Central School Dist. – Education, Science & Technology	Member	Tracy	Adams			X									

X = Present	2022	Affiliation		First Name	Last Name	Jan No mtg	Feb No mtg	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
			Alternate	Paul	Infranco												
		Middle Island Civic Association - Civic	Member	Martin	Filler			X									
			Alternate	Margaret	Malloy												
		NSLS-II User Committee – BNL Affiliation	Member	Jean	Jordan-Sweet			X									
			Alternate														
		Ridge Civic Association - Civic	Member	Ken	Casanova												
		Suffolk County Legislature 1st Dist. - Government	Member	Al	Krupski			X									
			Alternate	John	Stype												
		Teachers Federal Credit Union – Business & Labor	Member	Sandra	Santos-Keel			X									
			Alternate	Alexa	Keough												
		Town of Brookhaven, Senior Citizens Office - Government	Member	James	Heil												
			Alternate														
		Town of Riverhead - Government	Member	Dan	McCormick			X									
			Alternate														
		Wading River Civic Association - Civic	Member	Henry	Perez												
			Alternate	Linda	Rundlett												